

#### PROJECT OVERVIEW

RBA were commissioned by Arcadis to carry out the Civils design associated with a large multi-disciplinary enhancement project to install a turnback facility at Dunblane Station. Phase 1 involved the design of a platform extension of Platform 2 and 3, Phase 2 involved signal base designs, staging, ancillary items including PSP / DNO facilities.

#### Platform Design

Platform 2 was to be extended at the high mileage end by 20.665m from the existing top of ramp. The platform build up was Network Rail standard blockwork with concrete oversail units and standard coper slabs with conventional mortar joints. The platform wall build up was to be supported on pre-cast reinforced concrete strip foundations subject to confirmation of sub-strata bearing.

Platform 3 was extended northwards to the same chainage as platform 2 with new access stairs and fencing fitted accordingly. This represented an extension of 48.864m. The platform was to be shortened at the south end (low mileage) to enable the new folding signals DB49 and DB51 to be installed. Following the cut back, the platform end wall was built up with the same blockwork and details as the extension at the high mileage end.

Foundations for ancillary civils equipment were designed as bespoke items to the equipment and their specific requirements. There was a combination of pad foundations, embedded and standardised bases from external suppliers used throughout to simplify construction where practical.

#### Signalling and Ancillaries Works

To assist with the design development within the constraints of a tight construction programme RBA scoped the topo and ground investigation works which tied into the developing Signalling Scheme Plan and Sighting Forms and allowed the Civils design to progress whilst the other discipline designs developed in the background. Signalling foundations ranged from using piled foundations, or precast concrete bases, with all associated retention requirements.

There is a total of 40 assets as a part of this design package. PACE2 Design works were completed at the end of June 2023 with completion on site by the end of 2023.

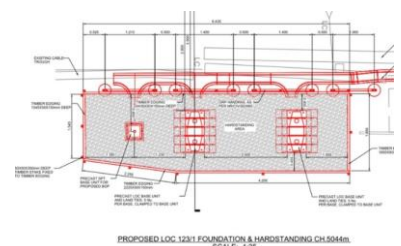
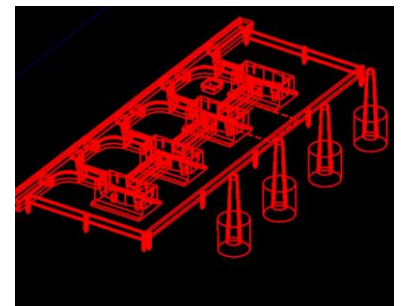
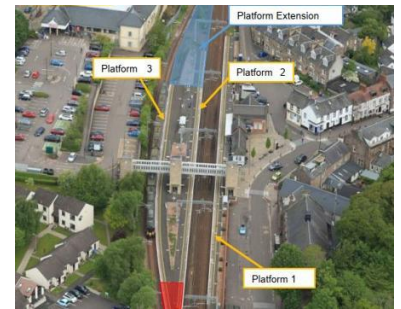
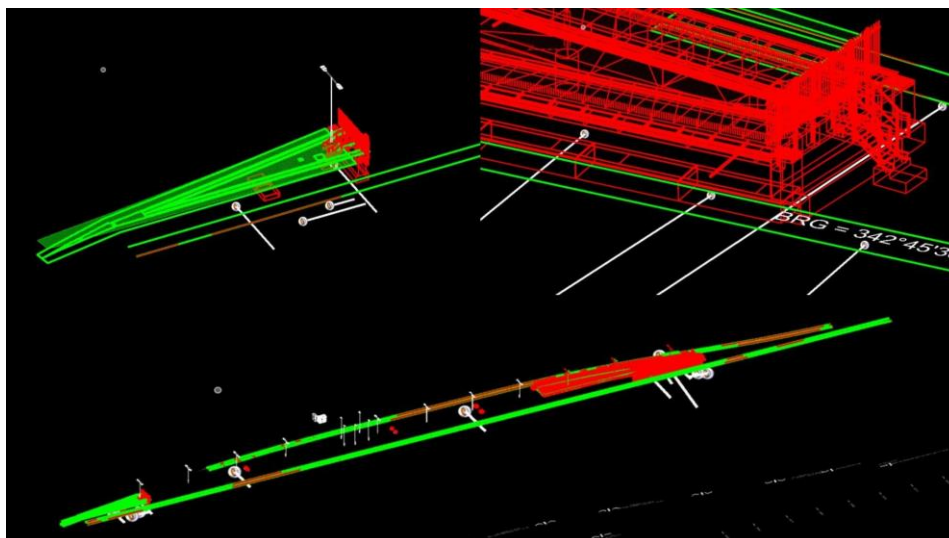


Figure 2 – Technical Drawing of LOC Design for Ancillary Package

#### Services Snapshot

- Signal design
- LOC and FSP design
- 3D Modelling on Microstation
- Managed via ProjectWise
- Lineside Ancillaires
- Retention Design